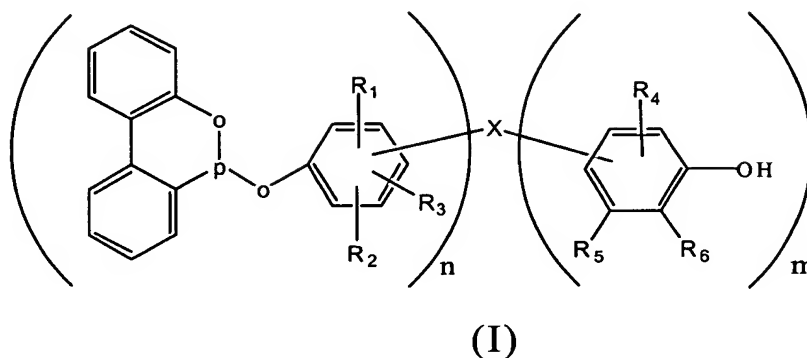


WE CLAIM:

1. A phenolic group-containing phosphonite compound of formula (I)



5

wherein

$R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ , and  $R_6$  independently of one another are hydrogen or  $C_1$ - $C_{18}$  alkyl,

$n$  and  $m$  are integer numbers ranging from 1 to 3, and  
10 the sum of  $n$  and  $m$  ranges from 2 to 4; and

wherein

$X$ , if the sum of  $n$  and  $m$  is 2, is sulfur or  $C_1$ - $C_8$  alkylene which may be optionally substituted with at least one  $C_1$ - $C_6$  alkyl,

15  $X$ , if the sum of  $n$  and  $m$  is 3, is a trivalent moiety of  $C_3$ - $C_7$  aliphatic group, and

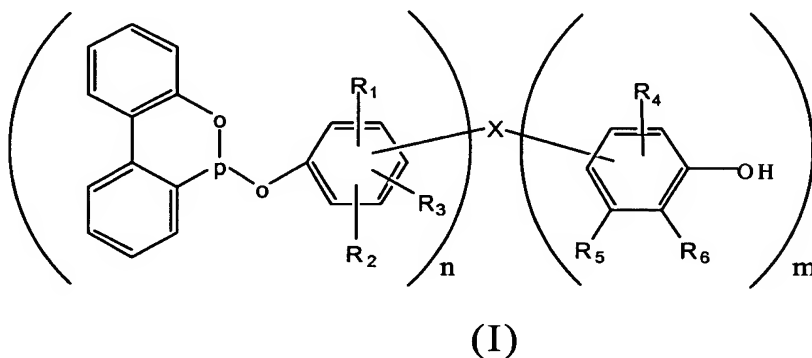
$X$ , if the sum of  $n$  and  $m$  is 4, is a tetravalent moiety of  $C_4$ - $C_{10}$  aliphatic group.

2. The compound of formula (I) as defined in Claim  
20 1, wherein  $n$  and  $m$  are 1, and  $X$  is  $C_1$ - $C_6$  alkyl substituted alkylene.

3. The compound of formula (I) as defined in Claim 2, wherein X is propylmethylene, R<sub>1</sub> and R<sub>4</sub> are methyl, R<sub>2</sub> and R<sub>6</sub> are t.butyl, and R<sub>3</sub> and R<sub>5</sub> are hydrogen.

4. A polymer composition stabilized against oxygen, light, and heat, comprising:

a polymer material; and  
a phenolic group-containing phosphonite compound of formula (I)



10

wherein

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, and R<sub>6</sub> independently of one another are hydrogen or C<sub>1</sub>-C<sub>18</sub> alkyl,

n and m are integer numbers ranging from 1 to 3, and  
15 the sum of n and m ranges from 2 to 4;

wherein

X, if the sum of n and m is 2, is sulfur or C<sub>1</sub>-C<sub>8</sub> alkylene which may be optionally substituted with at least one C<sub>1</sub>-C<sub>6</sub> alkyl,

20 X, if the sum of n and m is 3, is a trivalent moiety of C<sub>3</sub>-C<sub>7</sub> aliphatic group, and

X, if the sum of n and m is 4, is a tetravalent moiety of C<sub>4</sub>-C<sub>10</sub> aliphatic group.

5. The polymer composition as defined in Claim 4, wherein n and m are 1, and X is C<sub>1</sub>-C<sub>6</sub> alkyl substituted  
5 alkylene.

6. The polymer composition as defined in Claim 5, wherein X is propylmethylene.

7. The polymer composition as defined in Claim 4, wherein X is sulfur.

10 8. The polymer composition as defined in Claim 4, wherein said polymer material is selected from the group consisting of polyolefins, polystyrene, and styrene copolymers.

9. The polymer composition as defined in Claim 4,  
15 wherein said polymer material is selected from the group consisting of polypropylene, polyethylene, and mixtures thereof.

10. The polymer composition as defined in Claim 4, wherein said polymer material is acrylonitrile-  
20 butadiene-styrene copolymer.

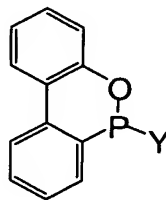
11. The polymer composition as defined in Claim 4, further comprising a phosphorus compound selected from the group consisting of tetrakis(methylene(3,5-di-t-butyl-4-hydroxyhydrocinnamate)methane, octadecyl 3-(3',5'-di-t-butyl-4'-hydroxy-phenyl)propionate, and mixtures thereof.

12. The polymer composition as defined in Claim 4,  
 further comprising a phosphite compound selected from  
 the group consisting of tris(2,4-di-t-  
 butylphenyl)phosphite, cyclic neopentanetetrayl  
 5 bis(octadacyl phosphite), and mixtures thereof.

13. The polymer composition as defined in Claim 12,  
 further comprising a phosphorus compound selected  
 from the group consisting of  
 tetrakismethylene(3,5-di-t-butyl-4-  
 10 hydroxyhydrocinnamate)methane, octadecyl 3-  
 (3',5'-di-t-butyl-4'-hydroxy-phenyl)propionate, and  
 mixtures thereof.

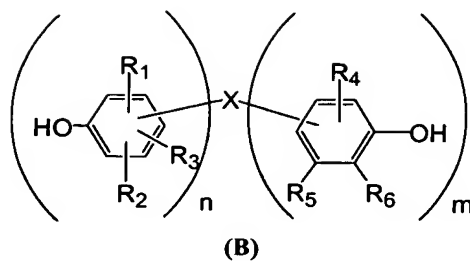
14. The polymer composition as defined in Claim 4,  
 wherein said phenolic group-containing phosphonite  
 15 compound is in an amount of from 0.05 to 0.5wt% of  
 said polymer composition.

15. A process for preparing the compound of formula  
 (I) as defined in Claim 1, comprising the steps of:  
 reacting a phosphonite compound of formula (A)



(A)

20 wherein Y is halogen, with a phenolic compound of  
 formula (B)



wherein  $n$ ,  $m$ ,  $R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_5$ ,  $R_6$ , and  $X$  have the  
 5 same meanings as defined in Claim 1, in a non-acidic  
 reaction condition.

16. The process as defined in Claim 15, wherein  $n$  and  
 $m$  are 1, and  $X$  is  $C_1$ - $C_6$  alkyl substituted alkylene.

17. The process as defined in Claim 15, wherein  $X$  is  
 10 propylmethylene,  $R_1$  and  $R_4$  are methyl,  $R_2$  and  $R_6$  are  
 t.butyl, and  $R_3$  and  $R_5$  are hydrogen.

18. The process as defined in Claim 15, wherein the  
 reaction is carried out in the presence of a base in  
 an inert solvent.

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